IBM watsonx.data and IBM Data Gate for watsonx

Unlock the power of mainframe data for analytics and AI through watsonx.data

Highlights

Readily incorporate IBM Z data within watsonx.data

Revolutionarily simple, efficient data synchronization

Deliver up-to-date data for analytics and AI models

Apply as much compute for complex analysis as you need without impacting mainframe processing

IBM® watsonx.data™ data enables you to scale analytics and AI with all your data, wherever it resides. It is a fit-for-purpose data store built on an open data lakehouse architecture to scale analytics and AI workloads, for all your data, anywhere.

IBM Z® transactional data is the definitive source of truth and represents the current state of the business for many organizations. With IBM Data Gate for watsonx you can seamlessly synchronize IBM Z data to watsonx.data and use the most up-to-date transactional data in analytics and machine learning/AI models.

With IBM Data Gate for watsonx and watsonx.data you can support cloud-based lakehouse initiatives with reduced cost and effort. Data Gate for watsonx offers an easy to use, integrated, efficient, end-to-end approach for synchronizing Db2® for z/OS®, IMS® and VSAM data to the Iceberg open table data format in watsonx.data.

Reduce time for accessing, transforming, and analyzing mainframe data with a revolutionarily simple approach to synchronizing mainframe data. Apply as much compute to transformations and complex analysis as you want and need without impacting mainframe operational applications.

Bring valuable enterprise IBM Z data to your IBM watsonx.data lakehouse to unlock the power of mainframe transactional data for AI.

96%

When synchronizing Db2 for z/OS data sources, up to 96% of system processing can be off-loaded to zIIP specialty processors.[1]

Capabilities

Readily incorporate IBM Z data within watsonx.data
Transactional data, such as the data that often originates on IBM Z, is essential to understanding business performance and customer behavior and when combined with other lakehouse data often offers the greatest predictive value for AI applications. This transactional data is critical for analysis and for building machine learning and AI models. ML/AI models help organizations identify patterns in historical data, build behavioral insights from those patterns, and make predictions or recommendations based on those behavioral models.

Deliver up-to-date data for analytics and AI models
Significant data latency is often one of the fundamental reasons why data within analytical data stores, such as data lakes and data warehouses, is not trusted. For the latest data, users often need to go to the operational data source bypassing data lakes and warehouses. With Data Gate for watsonx, the analytics and AI capabilities unleashed by watsonx.data can use recent, critical, IBM Z data to build and use machine learning and AI models.

Revolutionarily simple, efficient data synchronization
Data Gate for watsonx provides an integrated, resilient, standardized approach for synchronizing data from IBM Z to a watsonx.data lakehouse environment. It is designed to be more reliable, less complex, and less expensive than customized approaches.

For Db2 for z/OS data sources, a zIIP (z Integrated Information Processor) enabled log data provider captures Db2 for z/OS log changes and sends consolidated, encrypted changes to a log data processor via Data Gate for watsonx. The log data provider is integrated within Db2 for z/OS, requiring only configuration but no additional installation or maintenance.

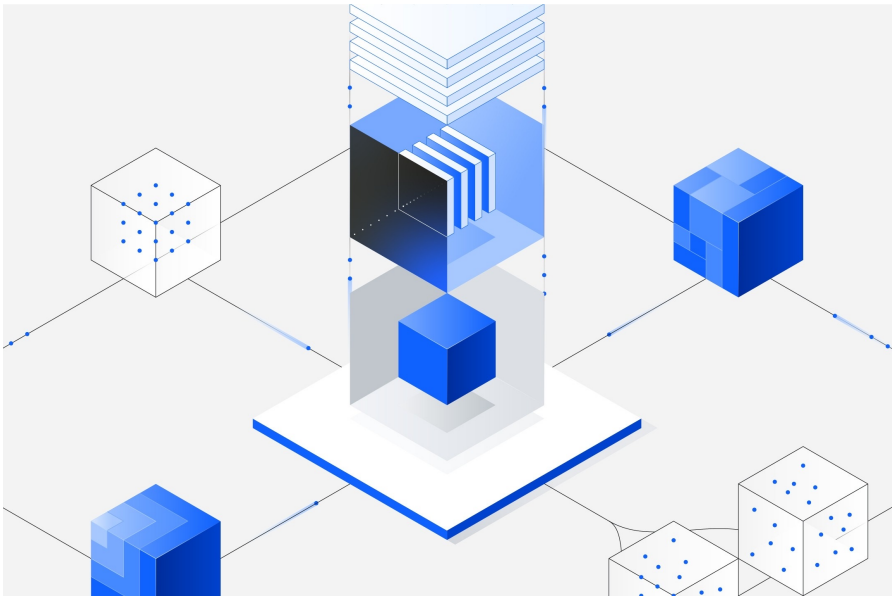
Organizations with VSAM and IMS data can simplify these potentially complex data formats and transform them into a relational table format readily understandable by developers and accessible by SQL based query tools.

Apply as much compute as you need without impacting mainframe processing
Organizations are always concerned about the potential impact to their transactional workloads, whether that is impacting the performance (throughput) of existing workloads or driving up the costs of those systems. Transformations, analysis and AI model builds can be very resource intensive. Hosting the IBM Z data outside of the mainframe isolates these workloads so they do not interfere with mainframe operational processing. With Data Gate for watsonx, applications can access a synchronized copy of IBM Z data, hosted within watsonx.data, freeing up mainframe z/OS based resources.

[1] According to IBM internal testing, when synchronizing Db2 for z/OS data sources, up to 96% of system processing can be off-loaded to zIIP specialty processors (z Integrated Information Processors). This does not include initial load/unload processing. Based on IBM testing of integrated synchronization processing in 2019.

Hardware and software configuration

6 z/14 GCPs and 2 ZIIPs	z/OS 02.02.00
96G Memory	Db2 for z/OS v12
10Gbit network to Accelerator	M4002-010 (IIAS 1-rack)



Scale AI workloads, for all your data, anywhere with watsonx.data

Conclusion

Using IBM Data Gate for watsonx, you can derive greater value from your watsonx.data lakehouse and existing IBM Z investment. They can help you reduce the complexity associated with delivering data for lakehouse initiatives. With them, your infrastructure investments can accelerate your lakehouse journey.

Why IBM?

IBM is trusted to manage companies' most mission-critical data and applications. Our experience of innovation in enterprise data solutions includes market-leading database solutions and enterprise-ready AI. We enable our clients to run solutions in any cloud or on-premises environment and believe that our clients' data solely belongs to them.

For more information

To learn more about IBM watsonx.data, please contact your IBM representative or IBM Business Partner, or visit ibm.com/products/watsonx-data.

To learn more about IBM Data Gate for watsonx, please contact your IBM representative or IBM Business Partner, or visit ibm.com/products/data-gate .

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Produced in the
United States of America
May 2024